

Great Plains Narrowmouth Toad

Gastrophryne olivacea
Family Microhylidae



Global Rank: G5

State Rank: S1 (CO, NM); S3 (AZ)

Distribution: In the 11 western states, the Great Plains narrowmouth toad occurs in south-central Arizona (Santa Cruz and Pima Counties), in extreme southwestern New Mexico (Luna County near Mexican border), and southeastern Colorado (Baca and Los Animas Counties). It is also found in central Mexico and east of the Continental Divide from southeastern Nebraska south through most of Kansas, Oklahoma, and Texas, and western parts of Missouri, Arkansas, and Louisiana. It extends from near sea level to around 4,100 ft. (1,250 m.) in elevation.

Description: Adults reach up to 1 1/2 in. (2-4 cm.) in snout-vent length. The small plump body has smooth skin (occasionally spotted) and a fold of skin just behind the pointed head. The hind legs are short and stout. Fingers and toes lack webbing. Young have a dark leaf-shaped pattern covering up to half the width of the back which fades with growth. Adult males have dark throats and small tubercles on the



*Current range of the
Great Plains narrowmouth toad*

lower jaw and chest. The vocal sac is round and about the size of a pea. The voice has been described as a peep followed by a buzz like that of an angry bee.

Reproduction: Breeding takes place in temporary pools and in larger semi-permanent ponds behind earthen dams. It occurs within a few days after rains from mid-March through August. Calling may occur in both day and night, but usually more vigorously at night. Females deposit up to several hundred eggs which hatch in about two days. Metamorphosis from larvae requires about 3-4 weeks, and toadlets disperse from the ponds when the next rainfall facilitates overland travel.

Food: This toad feeds almost exclusively on ants. Feces examinations have found nearly entirely ant remains and a few beetle fragments.

Habits: The secretive toad hides by day in damp burrows, crevices, and under rocks, bark, and boards in the vicinity of streams, springs, and rain pools. It ranges from mesquite grassland to oak woodland habitats.

Management Implications: The species is considered endangered by the New Mexico Department of Game and Fish, but appears to be stable in Colorado and possibly Arizona. An interesting sidebar is the association of the toad with tarantula spiders. Up to nine narrowmouth toads have been found in tarantula burrows with live tarantulas. It has been speculated that the two species benefit each other in that the spider protects the toads from foraging snakes and the toads eat marauding ants after the tarantula eggs and young.

Important References: Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. The Peterson Field Guide Series, Houghton Mifflin Company, New York, NY; Degen-

hardt, W.G., C.W. Painter, and A.H. Price. 1996. Amphibians and reptiles of New Mexico. University of New Mexico Press, Albuquerque, NM; Hammerson, G.A. 1999. Amphibians and reptiles in Colorado. University Press of Colorado, Niwot, CO.